

AF/3761#
PATENT
177079-00057 JFW

**THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Re Application of: Phyllis Liethem et al.

Serial No: 09/334,125

Filed: June 15, 1999

For: **ABSORBENT PRODUCTS AND METHODS OF PREPARATION
THEREOF**

Group Art Unit: 3761

Examiner : J. F. Stephens

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William Spatz
Name of Applicant, Assignee or Registered
Representative

William Spatz
Signature

June 7, 2004
Date of Signature

APPELLANTS' BRIEF

Commissioner for Patents
MAIL STOP APPEAL BRIEF - PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

This is an appeal from the final rejection of claims 61 and 62 in this application.

This brief is submitted in triplicate as required by 37 C.F.R. § 1.192(a).

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REAL PARTY IN INTEREST

The real party in interest in this appeal is Rayonier Products and Financial Services Company ("RPFSC") which acquired the application from Rayonier Inc. by assignment. The assignment to RPFSC has not yet been recorded with the U.S. Patent & Trademark Office.

RELATED APPEALS AND INTERFERENCES

Appellants are not aware of any related appeals or interferences which directly affect, or are directly affected by, or have a direct bearing on the Board's decision in this appeal, although the same Appellants have filed an appeal in U.S. Application Number 09/863,585 which presents related issues. Additionally, on August 27, 2001, Appellants requested the declaration of an interference with USPN No. 5,766,159 upon the allowance of this application.

STATUS OF CLAIMS

Claims 61 and 62 are pending in this application. Claims 1-60 and Claims 63-65 have been cancelled.

Claims 61 and 62 stand rejected under 35 U.S.C. § 102(b) as allegedly obvious over U.S. Patent No. 3,658,064 to Pociluyko (hereinafter "**Pociluyko**") in view of U.S. Patent No. 2,083,575 to Novak (hereinafter "**Novak**").

Appendix A, annexed hereto, contains a copy of Claims 61 and 62.

STATUS OF AMENDMENTS

Appellants appeal the Final Official Action dated February 6, 2004 of the Examiner finally rejecting claims 61 and 62 (the "Final Action"). A Response to the Final Action under 37

C.F.R. §1.116 (the “Response”) was filed on April 2, 2004. The Response did not amend the claims. The Examiner issued an Advisory Action on April 30, 2004 (the “Advisory Action”) which declined to enter “the proposed amendment” and maintained all of the outstanding claim rejections. Although no amendment was made in the Response, the Examiner is understood to have further explained her reasons for rejecting Claims 61 and 62 in the Advisory Action.

A first Official Action in the application was mailed June 18, 2003 (more than four (4) years after the filing of the application), by the then presiding Examiner rejected Claims 61 and 62 as anticipated under 35 U.S.C. §102(b) by U.S. Patent No. 3,932,209 to Chatterjee (the “First Official Action”). Appellants responded by amending Claims 61 and 62. The Final Official Action dropped the citation of Chatterjee.

SCHEDULE OF CITED PRIOR ART

Pociluyko (U.S. Patent No. 3,658,064) discloses an absorbent article, namely a disposable diaper, made with a pad of fluffed wood pulp (**Pociluyko**, Col. 4, lines 36-53).

Novak (U.S. Patent No. 2,083,575) teaches a process for making an absorbent feltlike paper by wet laying pulp which has been treated with caustic soda. (**Novak** Col. 2, lines 14-28 and Col. 2, line 54 to Col. 3, line 20).

Chatterjee (U.S. Patent No. 3,392,209) teaches absorbent devices made with wood fiber which is chemically crosslinked. (**Chatterjee**, Col. 3, lines 3-17).

SUMMARY OF THE INVENTION

The present invention relates to absorbent personal hygiene devices, such as for example diapers, which are comprised of an absorbent core sublayer material comprised of based treated wood fiber pulp interposed between a fluid impermeable backsheet layer and a fluid permeable topsheet layer. The wood fiber pulp used in the invention has been treated (extracted)

using a base at a temperature in the range from 15°C to 60°C. Wood fiber pulp which is extracted with a base in accordance with the process of the invention is structurally different than conventional wood fiber pulp by reason of the removal of hemicellulose and lignin from the constituent cellulose fiber by base treatment. (See the cited prior art, **Chatterjee**, Col. 4, lines 50-68, and compare Fig. 1 and Fig. 3 of **Chatterjee**; see also the Specification of this Application, page 4, lines 9-23). The base treated wood fiber pulp used in the claimed process is fluffed to form individualized wood pulp fibers by mechanical action of a hammermill mill, or other attrition device, on dried pulp prior to incorporation into the absorbent devices (see Specification at page 14, lines 10-23). The wood fiber pulp in the absorbent cores of the invention is not chemically crosslinked. (Specification at page 1, lines 5-11, page 14, lines 10-22).

In the production of absorbent devices such as baby diapers, incontinence and catamenial devices and wound dressings (i.e. absorption intensive devices) which contain wood fiber pulp, it has been conventional to use chemical crosslinking to increase the stiffness of the wood fiber pulp fibers, so that a fiber matrix made from them retains its bulk and pore volume when wet, thereby enhancing its absorbency (Specification at page 2, line 16 to page 3, line 10; and **Chatterjee**, Co. 1, lines 35-40).

Prior to the present invention, it was not believed to be possible to achieve the absorption, insult (or re-wetting), liquid retention, softness and pad integrity of modern absorbent composites without employing chemically crosslinked wood fiber pulp. Chemically crosslinked wood pulp fiber has increased the wet stiffness which prevents wet fiber collapse, thereby enhancing absorbency. (Specification, page 3, lines 3-9). The Specification of the present application at page 2, lines 16 to 22 references several prior patents directed to the use of

chemically crosslinked wood fiber pulp in absorbent composites. The initially cited art of record, **Chatterjee**, is another such example. The present invention surprisingly discovered that by employing based treated wood fiber pulp according to the process of the invention, an absorbent composite with desirable absorbency properties for use in personal hygiene devices could be formed without chemically crosslinked wood fiber pulp. The avoidance of chemically crosslinked wood fiber pulp was the expressed objective of the present invention (Specification at page 1, lines 6-12).

The present invention is commercially important in that it enables the manufacture of absorbent composites, such as diapers, containing wood fiber pulp without the expense of using chemically crosslinked wood fiber pulp. The same process has already been patented in U.S. Patent No. 5,766,159 with which Appellants have requested that an interference be declared. Applicants' Request for Interference was filed in this application on August 27, 2001.

ISSUES

The issue on appeal is whether Claims 61 and 62 are patentable under 35 U.S.C. §103(a) over **Pociluyko** in view of **Novak**.

GROUPING OF CLAIMS

Claims 61 and 62 stand or fall together.

ARGUMENT**Claims 61 and 62 are patentable under 35 U.S.C. §103(a) over Pociluyko in view of Novak.**

The Examiner has rejected claims 61 and 62 under 35 U.S.C. 103 (a) as being unpatentable over Pociluyko (USPN 3,658,064) in view of Novak (USPN 2,083,575). The Examiner stated that Pociluyko discloses an absorbent article comprising a fluid permeable topsheet layer, a substantially fluid impermeable backsheet layer and a sublayer of fluff material. The Examiner conceded that Pociluyko does not disclose a method of manufacturing his fluff material, and does not suggest that Pociluyko discloses the use of based treated pulp. Rather, the Examiner states that Novak discloses a method of making fluff pulp capable of being used in personal hygiene articles which comprises treating a wood fiber pulp containing wood fibers with a base at room temperature. Therefore, the Examiner concluded that the present invention is obvious over the combination of these two references.

The present invention relates to a method for making absorbent composites by base extracting wood fiber pulp, and then fluffing the treated pulp prior to interposing it between a fluid permeable top sheet and an impermeable bottom sheet to form an absorbent composite.

Applicants submit that the Examiner has not established a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. In addition, there must be a reasonable expectation of success. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure, MPEP 2143; *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Examiner's reliance upon the combination of Pociluyko and Novak to arrive at the present invention is misplaced because neither Pociluyko nor Novak suggest that the Novak pulp would be suitable for use in the claim method to make absorbent composites. Further, Novak does **not** teach that his pulp is fluffed. The pulp product of Novak is a wet-laid felt and not a fluff material as the Examiner has alleged. As explained in the present Specification at page 14, lines 10-23, to fluff a wood fiber pulp, it must first be dried and then subjected to dry shredding in a Hammermill or other attrition mill. The **Chatterjee** reference cited by the Examiner describes the same procedure for making wood pulp fluff at **Chatterjee**, column 6, lines 18-34. In contrast, **Novak** describes introducing sheets of pulp into a Holland beater "with sufficient water to allow the stock to properly circulate." After the stock of **Novak** is separated, it is dumped into a stock chest and run off on a paper machine in the usual manner to make felt-like paper. See **Novak**, col. 2, line 54 to col. 3, line 16. Accordingly, **Novak** clearly describes the manufacture of wet-laid paper, not dry shredded fluff.

Those skilled in the art could not substitute the felt of Novak for the fluff material of Pociluyko to produce the presently claimed invention as the Examiner has concluded, even if such a substitution were to be obvious. Further, since the teachings of Pociluyko and Novak were known to those skilled in the art for more than 30 and 70 years, respectively, before the present invention, even if Novak taught fluffed pulp, it is improper for the Examiner to conclude without benefit of suggestion in the cited art that a person skilled in the art would find it obvious to combine these two references to arrive at an absorbent composite which does not require chemically crosslinked pulp. If the invention were obvious as the Examiner has concluded, it would not have taken 70 years for Novak's caustic extracted pulp felt to be fluffed and incorporated in the presently claimed absorbent composite.

Accordingly, Applicants submit that the Examiner's §103 rejection is improper because 1) Novak does not disclose a fluffed pulp as the Examiner has alleged; 2) the combination of references relied upon is not suggested by the prior art, as is required; 3) even if the Examiner's combination were to be suggested, it would not yield the presently claimed combination, and 4) the prior art previously relied upon by the Examiner (**Chatterjee**) teaches away from the use of pulp which is not chemically cross linked.

CONCLUSION

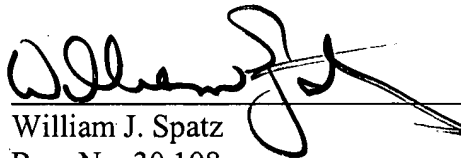
For the foregoing reasons, it is submitted that the presently pending claims are allowable and the rejection of Claims 61 and 62 is improper and should be reversed. Allowance of Claims 61 and 62 is in order and such action is solicited.

Dated: June 7, 2004

Respectfully submitted,

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Appendix A

61. A method for making an absorbent composite useful for personal hygiene articles which comprises: treating a wood fiber pulp containing wood fibers with a base at a temperature ranging from 15° C. to about 60°C. thereby forming a treated wood fiber pulp containing wood fibers; fluffing the treated wood fiber pulp to form an absorbent sublayer material comprised of fluffed base-treated wood fiber pulp; providing at least one fluid permeable topsheet layer and at least one substantially fluid impermeable backsheet layer; and interposing the sublayer material between the topsheet layer and the backsheet layer wherein the treated wood fiber pulp is not subjected to chemical crosslinking.

62. The method of claim 61 wherein the sublayer material contains about 25 to about 100% by weight of treated wood fiber pulp and from about 0 to about 75% by weight of wood fiber pulp which is not base-treated.